



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,652	07/30/2001	Martin Birk	03493.00253	8496

22907 7590 09/20/2005

BANNER & WITCOFF
1001 G STREET N W
SUITE 1100
WASHINGTON, DC 20001

EXAMINER

PHAN, HANH

ART UNIT PAPER NUMBER

2638

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/916,652	BIRK ET AL.	
	Examiner	Art Unit	
	Hanh Phan	2638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on 05/16/2005.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the feature **“the delivery of a plurality of video blocks is augmented to additionally include delivery of switched services by using an additional narrowband signal source to provide a narrowband signal and by using an additional coarse WDM (CWDM) to detect and select the switched services prior to introduction of the passively split combined broadcast signal to said WGR”** specified in the claims 7 and 14 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

Art Unit: 2638

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung et al (US Patent No. 6,597,482) in view of Thompson et al (US Patent No. 6,282,005).

Regarding claims 1 and 8, referring to Figure 2, Chung teaches a system for delivering a plurality of video blocks to a user terminal serviced by a remote node comprising:

a broadband signal source (i.e., 101, 102, 103, 105, Fig. 2, col. 5, lines 16-34) for providing a broadband signal;

a first WDM (i.e., WGR 106, Fig. 2) having an input port and a plurality of output ports, wherein the broadband signal is forwarded to the input port of the first WDM and further wherein the first WDM separates the broadband signal into a plurality of optical

bands output to the output ports of the first WDM (col. 4, lines 32-38 and col. 5, lines 16-34);

a plurality of modulators (i.e., optical modulators 107, Fig. 2), wherein each of the plurality of modulators modulate one of the optical bands with a composite signal representing data in a plurality of independent signal blocks to form a plurality of modulated signals;

a second WDM (i.e., WGR 108, Fig. 2) configured to receive said plurality of modulated signals, wherein the second WDM forms a combined broadcast signal for output on an output port of the second WDM;

a feeder fiber (i.e., a feed fiber with 20km long connects from the central office 1 to the remote node 2, Fig. 2), wherein the remote node (i.e., remote node 2, Fig. 2) receives the combined broadcast signal via the feeder fiber;

— a distribution fiber for distributing the combined broadcast signal to a user's site to enable a satellite set-top box at the user's site to select a RF block (i.e., distribution fibers with 1km long connects from the remote node 2 to subscribers 1-15, Fig. 2).

Chung differs from claims 1 and 8 in that he fails to specifically teach the composite signal representing data in a plurality of independent RF blocks. However, Thompson in US Patent No. 6,282,005 teaches the composite signal representing data in a plurality of independent RF blocks (see Figs. 1, 2 and 4 of Thompson, col. 10, lines 57-67, col. 11, lines 1-35 and col. 8, lines 30-67). Therefore, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the composite signal representing data in a plurality of independent RF blocks as taught by

Art Unit: 2638

Thompson in the system of Chung. One of ordinary skill in the art would have been motivated to do this since Thompson suggests in column 10, lines 57-67, col. 11, lines 1-35 and col. 8, lines 30-67 that using such the composite signal representing data in a plurality of independent RF blocks have advantage of allowing providing an analog broadband signal is used extensively in CATV applications to broadcast programming to subscribers of a system.

Regarding claims 2 and 9, Chung further teaches the optical bands match a Free Spectral Range (FSR) of a Waveguide Grating Router (WGR) at the remote node (Fig. 2, col. 4, lines 32-67 and col. 5, lines 1-34).

Regarding claims 3 and 10, the combination of Chung and Thompson teaches wherein an optical filter, nominally matched to one of the first WDM's optical bands at the user's site, is used to select a stack of RF blocks, wherein the stack of RF blocks represents one optical band of the plurality of optical bands (see Fig. 2 of Chung and Fig. 4 of Thompson).

Regarding claims 4 and 11, the combination of Chung and Thompson teaches further comprising: a block-converter for converting said stack of RF blocks; and a bandpass filter for retrieving said selected RF block from said block-converted stack of RF blocks (see Fig. 2 of Chung and Fig. 4 of Thompson).

Regarding claims 5 and 12, the combination of Chung and Thompson teaches further comprising a passive splitter to split the combined broadcast signal, wherein the split combined broadcast signal is introduced to the WGR on a plurality of the WGR's input ports (see Fig. 2 of Chung and Fig. 4 of Thompson).

Regarding claims 6 and 13, the combination of Chung and Thompson teaches further comprising an optical amplifier, wherein the combined broadcast signal is optically amplified prior to being passively split (see Fig. 2 of Chung and Fig. 4 of Thompson).

5. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung et al (US Patent No. 6,597,482) in view of Thompson et al (US Patent No. 6,282,005) and further in view of Lu et al (US Patent No. 5,880,865).

Regarding claims 7 and 14, Chung as modified by Thompson teaches all the aspects of claimed invention except fails to teach the delivery of a plurality of video blocks is augmented to additionally include delivery of switched services by using an additional narrowband signal source to provide a narrowband signal and by using an additional coarse WDM (CWDM) to detect and select the switched services prior to introduction of the passively split combined broadcast signal to said WGR. However, Lu in US Patent No. 5,880,865 teaches teach the delivery of a plurality of video blocks is augmented to additionally include delivery of switched services by using an additional narrowband signal source to provide a narrowband signal and by using an additional coarse WDM (CWDM) to detect and select the switched services prior to introduction of the passively split combined broadcast signal to said WGR (Fig. 7, col. 5, lines 17-45). Therefore, it would have been obvious to one having skill in the art at the time the invention was made to incorporate teach the delivery of a plurality of video blocks is augmented to additionally include delivery of switched services by using an additional

Art Unit: 2638

narrowband signal source to provide a narrowband signal and by using an additional coarse WDM (CWDM) to detect and select the switched services prior to introduction of the passively split combined broadcast signal to said WGR as taught by Lu in the system of Chung modified by Thompson. One of ordinary skill in the art would have been motivated to do this since Lu suggests in column 5, lines 17-45 that using such teach the delivery of a plurality of video blocks is augmented to additionally include delivery of switched services by using an additional narrowband signal source to provide a narrowband signal and by using an additional coarse WDM (CWDM) to detect and select the switched services prior to introduction of the passively split combined broadcast signal to said WGR have advantage of allowing providing a better service to customers and reduce cost of the system for delivery of both switched services and broadcast signal to the subscribers.

Response to Arguments

6. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (571)272-3035.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye, can be reached on (571)272-3078. The fax phone

Application/Control Number: 09/916,652

Page 8

Art Unit: 2638

number for the organization where this application or proceeding is assigned is
(571)273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.


HANH PHAN
PRIMARY EXAMINER